

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Due Date: \_\_\_\_\_

**When solving the following problem, be sure to:**

- 1) Restate the Question**
- 2) State your answer in a complete sentence (reference the question).**
- 3) Show work and/or explain solution strategy**

## **The Box Supper**

Back in the olden days in the Midwest of the United States, school, church, and community groups in rural areas often held a fund-raising event called a **box supper**. It was a popular and fun way for people to get together for a good cause, especially young lovers. It worked something like this:

The young ladies would cook a delicious meal at home, put it in a box, and decorate the box in an attractive manner. Once at the event, the young men would bid on the boxes in auction style. Each box would go to the one who offered the greatest amount of money, and he would have the privilege of eating the food with the girl who had prepared it.

Of course, certain girls wanted to eat with certain boys, their boyfriends, so word of how his girlfriend would decorate her box usually got around to the boy, so that he could be sure which one to bid on. That was what our three young ladies, Sally Jo, Mary Lou, and Judy Ann, did.

Sally Jo prepared a great roast beef sandwich with thick slices of homemade bread, French fries, apple salad, and sweet pink lemonade. Her boyfriend, Joseph, paid a modest but significant amount for that box. (It cost him an odd number of dollars.)

Mary Lou's specialty was juicy slices of Virginia ham with a pineapple sauce on top, scalloped potatoes, a tomato and lettuce salad, and peppermint tea. Her boyfriend, Leroy, won that box for a very good price. (It cost him 25 fewer dollars than three times what Joseph spent.)

But it was Judy Ann's specialty of Southern Fried Chicken that really stole the show. Rumor has it each and every bite of that chicken would melt in your mouth. She topped the meal off with creamy mashed potatoes and gravy, peach cobbler, and that new soft drink sensation everybody was talking about, Dr. Coker. Her boyfriend Arnold, who was famous for his skills in the business world, paid top dollar for that scrumptious meal. (He paid five times the positive difference between what Joseph and Leroy paid.)

We want to know just how much Arnold paid, but you need to know two more facts:

- the total amount of money raised was twelve times Joseph's payment, and
- the sum of the money paid by these three gentlemen was \$4 more than the amount paid by everybody else who bought boxes.

**Bonus:** What was the total amount of money raised?

**Advice:** Proceed carefully with this problem. Clear thinking and neat writing are definitely very important this time.

Please answer the problem on a separate piece of paper. You must include all your calculations and an explanation of how you got your answer. Your paper will be scored in the following way:

- 4 The answer and the bonus are correct, you have included all your calculations, and the explanation is thorough and understandable. OK, there is no bonus, so your explanation needs to be fantastic to earn a 4.
- 3 The answer is correct, you have included all your calculations, and the explanation is complete and clear to the reader.
- 2 The answer is missing one of the items mentioned above.
- 1 The answer is incorrect, and the explanation or calculations are poor or missing.

- 0 Minimal or no effort was made to solve the problem.
- All late work is marked down a grade.